

Patent claims

PT/PTO 08 FEB 2005

1. A method for determining parameters for WAP-based
5 transmissions,
- where short-term and long-term predictions are
taken as a basis for making decisions about the
type of transmission,
- where, for long-term predictions about the
10 possibility of setting up a connection or the
quality of a connection, decisions in the form of
send and/or get or resume or suspend are made,
- where, for short-term predictions regarding an
15 existing connection, decisions in the form of
number of asynchronous transactions and/or of the
delay of a retransmission and/or burst mode and/or
of the packet size are made.
2. A method for determining parameters for WAP-based
20 transmissions,
- where short-term and long-term predictions are
taken as a basis for making decisions about the
type of transmission,
- where, for long-term predictions about the
25 possibility of setting up a connection or the
quality of a connection, decisions in the form of
send and/or get or resume or suspend are made,
- where, for short-term predictions regarding an
30 existing connection, decisions in the form of
number of asynchronous transactions and/or of the
delay of a retransmission and/or burst mode and/or
of the packet size are made,
and even when there is a prediction about an imminent
cell change the packet size is adapted in order to
35 terminate the transmission before the cell change and
to wait with the next packet for the cell change to
have taken place.

3. The method as claimed in the preceding claim, wherein, for a prediction which rules out packet loss during the transmission, the next packet group (burst) is transmitted in enforced fashion in order to ensure
5 continual data transmission and to minimize breaks.

4. The method as claimed in one or more of the preceding claims, wherein, for a prediction about a shortfall below a particular quality for the
10 connection, the transmission and/or the retransmission of a packet is delayed until the quality rises.

5. The method as claimed in one or more of the preceding claims, wherein, for a prediction about a
15 shortfall below a particular quality, the packet size is reduced.

6. The method as claimed in one or more of the preceding claims, wherein, for a prediction about a
20 shortfall below a particular quality, the number of parallel transactions is altered, with the number being increased and the size of the packets being reduced, in particular.

25 7. The method as claimed in one or more of the preceding claims, wherein, for a prediction about an excess over a particular quality, the burst rate is increased.

30 8. The method as claimed in one or more of the preceding claims, wherein the method for predicting qualities is a multidimensional stochastic algorithm which, in particular, uses covariance matrices, neural networks, genetic algorithms and/or simulated
35 annealing.

9. The method as claimed in the preceding claim, wherein the algorithm calculates time-dependent statements about the quality.

10. The method as claimed in one or more of the preceding claims, wherein the received signal code power (RSCP), the position, the direction, the level,
5 the speed, the received signal strength indicator (RSSI), the block size, the codec, the header compression method, SNR, the volume of traffic, the transmission delay, the block error rate, the bit error rate and/or carrier to interference ratio (C/I) are
10 included in the calculation and are taken into account as output.

11. A mobile terminal computer system, characterized by means and the setup thereof, which allow the
15 execution of a method as claimed in one or more of the preceding method claims.

12. A piece of software for a mobile terminal which has a WAP stack, wherein a method as claimed in one or
20 more of the preceding claims is implemented.

13. A data storage medium for a mobile terminal, characterized by the storage of a piece of software as claimed in the preceding software claim.